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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,884	01/24/2001	Robert Williams	F0685	2559
45114	7590	01/31/2005	EXAMINER	
HARRITY & SNYDER, LLP 11240 WAPLES MILL ROAD SUITE 300 FAIRFAX, VA 22030				KIANERSI, MITRA
ART UNIT		PAPER NUMBER		
2145				

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/767,884	WILLIAMS, ROBERT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mitra Kianersi	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 September 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 24 January 2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/21/2005</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.13009.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 09/814,884. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims do not provide an address table access port to store contents of an entry from the address table. Ergo, the neglect of the access port renders the present claims to be broader than the co-pending application claims, and would necessarily conflict with the co-pending application claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-20 have been examined.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-13, 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukuzawa et al. (US Patent No. 5,247,620).

1. As per claim 1, a network device connected to a host, comprising:  
an address table configured to store a plurality of entries, (Fig 4), (Fig 5), (col 3, lines 11-12)  
a register accessible by the host and configured to store data for an entry in the address table; and (col 7, lines 51-54) table access logic configured to receive a command from the host to insert a new entry in the address table (Fig 3), (Fig 5), identify a location in the address table to store the new entry in response to the command, and store the data from the register in the address table at the identified location. (col 8, lines 16-32)
2. As per claim 3, wherein the table access logic is further configured to store data in the register indicating that the data for the new entry has been stored in the address table. (col 8, lines 13-14)
3. As per claim 5, wherein when identifying a location in the address table, the table access logic is configured to apply a hashing function to the data in the register, and identify the location in the address table using the hashed data. (col 7, lines 61-67)
4. As per claim 6, wherein the table access logic is further configured to receive a modify table entry command from the host, locate one of the entries in the address table to modify using the data from the register, and overwrite the located entry with the data from the register. (col 12, lines 9-19)
5. As per claim 8, wherein the table access logic is further configured to receive a delete table entry confirmed from the host, locate one of the entries in the address table to delete using the data from the register, and delete the located entry from the address table. (col 8, lines 33-58)

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6. As per claim 10, wherein the table access logic is further configured to receive a search address table command from the host, locate one of the entries in the address table in response to the search address table command, and store contents of the located entry in the register. (col 7, line 60) and (col 8, line 15)

7. As per claim 11, a network device connected to a host, comprising:  
An address table configured to store a plurality of entries.(Fig.4), (Fig.5), (col 3, lines 11-12), a register configured to store data corresponding to one of the entries in the address table, (col 7, lines 51-54), table access logic configured to receive a delete table entry command from the host (Fig.3) and (Fig.5), apply a hashing function to the data in the register, search the address table to locate one of the entries to delete using the hashed data, delete the located entry from the address table, and store data in the register that indicates that the located entry has been deleted. (col 8, lines 33-58)

8. As per claim 13, wherein the table access logic is further configured to receive an insert table entry command from the host, find a location in the address table to create a new entry in response to the insert table entry command, and store the data from the register at the location in the address table. (col 8, lines 16-32)

9. As per claim 15, wherein the table access logic is further configured to receive a search address table command from the host, locate one of the entries in the address table in response to the search address table command, and store contents of the located entry in the register. (col 7, line 60) and (col 8, line 15)

10. As per claim 16, a network device connected to a host, comprising:  
an address table configured to store a plurality of entries having a plurality of fields, a register accessible by the host and configured to store data corresponding to at least one of the fields of one of the entries in the address table; and table access logic configured to receive a command from the host to search the address table, locate the one entry in the address table in response to the command and using the data from the

register, store contents of the one entry in the register, and store additional data in the register indicating that the address table has been searched. (Fig. 4), (Fig.5), (col 3, lines 11-12), (col 7, lines 51-54), (col 7, line 60) and (col 8, line 15)

11. As per claim 17, wherein the at least one field includes a source address or a destination address. (Fig.5), (col 1, lines 27-31) and (col 3, lines 11-24)

12. As per claim 18, wherein when locating the one entry, the table access logic is configured to read the source address or destination address from the register and find the one entry in the address table with a matching source address or destination address. (col 7, line 60) and (col 8, line 15)

13. As per claim 19, wherein the table access logic is further configured to receive an insert table entry command from the host, find a location in the address table to create a new entry in response to the insert table entry command, and store the data from the register at the location in the address table. (Fig.3), (Fig.5) and (col 8, lines 16-32)

14. As per claim 20, wherein the table access logic is further configured to receive a delete table entry command from the host, locate one of the entries in the address table to delete using the data from the register, and delete the located entry from the address table. (col 8, lines 33-58)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa (US Patent No. 5,247,620) and further in view of Flavin et al. (U.S. Patent 6,108,308).

15. As per claims 2 and 14, Fukuzawa disclose a network device comprising of an address table to store a plurality of entries. Fukuzawa does not explicitly disclose the entries include bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries. However, Flavin disclose a dynamic routing network device comprising of bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries (FIG. 99 column 12, line 60 to column 14, line 3). An ordinary skill in the art at the time the invention was made would have been motivated to look for a way to improve routing of information from one or more sources to one or more destinations (see Flavin: column 3, lines 13-19) as the size of networks continue to grow. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the inventions of Fukuzawa and Flavin to provide a network device utilizing pointers and heaps for more efficient dynamic routing.

16. Claims 4, 7, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable (US Patent No. 5,247,620) and further in view of Lawler et al. (US Patent 5,978951).

17. As per claim 4, Fukuzawa disclose a network device comprising of an address table to store a plurality of source and destination address entries (FIG. 5; FIG. 7) and functionalities associated to store, search and delete the entries. However, Fukuzawa did not expressly disclose using virtual local area network (VLANI identifier within the entries or the function of overwriting entries. Lawler taught a network device for

managing cache addresses utilizing an Address Cache ASIC with various functionalities to increase efficiency. However, Lawler disclose receiving a modify entry command, locate one of the entries in the address table to modify using the data from the register, and overwrite the located entry with the data from the register (column 12, lines 9-1 92).

An ordinary artisan at the same time the invention was made would have been motivated to look for a way to speed up address processing in a network environment (column 2, lines 19-43, Fukuzawa), (column 2, lines 43-462 Lawler). The VLAN identifier offers greater network management flexibility and the function overwrite enables a more efficient update scheme in contrast to Fukuzawa's system whereby one of ordinary skill in the art would have to issue a delete followed by a store command in order to achieve the same result. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the inventions of Fukmzawa and Lawler to provide a more efficient network-switching device utilizing VLAN and the functionality of overwrite.

18. As per claims 7 and 9, a network device comprising the data stored in the register includes a source address and a virtual local area network (VLAN) identifier; and wherein when locating one of the entries to modify, the table access logic is configured to read the source address and the VLAN identifier from the register and find one of the entries in the address table with a matching source address and VLAN identifier. (col 15, lines 30-51)

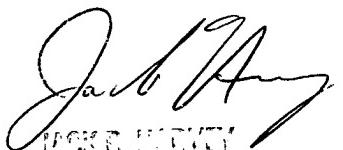
19. As per claim 12, wherein the data stored in the register includes a source address and a virtual local area network (VLAN) identifier; and wherein when searching the address table, the table access logic is configured to read the source address and the VLAN identifier from the register and find one of the entries in the address table with a matching source address and VLAN identifier. (col 15. lines 30-51)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (571) 272-3915. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mitra Kianersi  
Jan/21/2005



JACK D. HARVEY  
SUPERVISORY PATENT EXAMINER